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Public Service Commission of Wisconsin
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State of Wisconsin
Department of Health Services

Jim Doyle
Governor

Karen E. Timberlake
Secretary

July 19, 2010

Edward S. Marion
716 Ottawa Trail
Madison, WI 53711

Dear Mr. Marion:

Thank you for your July 12, 2010, letter to Secretary Karen E. Timberlake regarding the possible health effects of wind turbine noise. Secretary Timberlake has asked me to respond to you on her behalf, and I welcome the opportunity to do so. In your letter of May 13, you asked for confirmation of the Division of Public Health's views regarding the health effects of wind turbine noise. You shared additional information with us, and requested that the Division of Public Health (DPH) conduct a formal epidemiological study of the health effects of wind turbine noise in Wisconsin.

The presentation "Wind Turbines, a Brief Health Overview" by Dr. Jevon McFadden to the Wisconsin Wind Siting Council on May 17, 2010, was not a statement about the position of the Wisconsin Division of Public Health.

DPH recognizes that wind turbines create certain exposures; audible sound, low-frequency sound, infrasound and vibration, and shadow flicker. Certain ranges of intensity or frequency of audible sound, low frequency sound, vibration, and flicker have been associated with some objectively-verifiable human health conditions. Our review of the scientific literature concludes that exposure levels measured from contemporary wind turbines at current setback distances do not reach those associated with objective physical conditions, such as hearing loss, high blood pressure, or flicker-induced epilepsy.

Your letter also cites information that many symptoms are reported by some who live near wind turbines. This information is difficult to interpret for a few reasons.

First, symptoms such as sleep disturbance and headache are common, and caused by a wide variety of conditions. For example, sleep disturbance is a common problem in the general population, and may also be a sign of an underlying medical disorder. The same is true for symptoms like nausea, headache, problems with equilibrium, and others mentioned in your letter. Neither individuals, nor investigators should assume that they originate from exposure to wind turbines. Persistent symptoms, or those that interfere with daily functions, should be evaluated by a medical professional.

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Second, as your letter describes, some people experience annoyance at wind turbines, and annoyance has been associated with some of the symptoms you cite. Annoyance is a psychological reaction with a wide range of individual variability, and is influenced by multiple personal and situational factors. Annoyance, per se, is not considered a physical or mental health disorder, but it may influence perception or interpretation of health-related complaints. This makes it more difficult in an observational study to objectively assess whether or not reported symptoms are indicative of actual physical conditions caused by exposures from wind turbines.

DPH staff previously reviewed the five reports you referenced in your letter. They also reviewed over 150 reports from the scientific and medical literature (published and unpublished) pertinent to the issue of wind turbines and health. DPH has also taken time to listen to, and respond to concerns voiced by local residents, municipalities, and local health department officials from across the State of Wisconsin. We have discussed this issue with colleagues at UW School of Medicine and Public Health, the Minnesota and Maine state health departments, and the Centers for Disease Control and Prevention. From this, we conclude that current scientific evidence is not sufficient to support a conclusion that contemporary wind turbines cause adverse health outcomes in those living at distances consistent with current draft rules being considered by the Public Service Commission.

This is different from saying that future evidence about harms may not emerge, or that wind turbines will not change over time, or that annoyance and other quality-of-life considerations are irrelevant. DPH does not endorse a specific setback distance or noise threshold level relating to wind turbines. Nevertheless, in keeping with standard public health practice, DPH favors a conservative approach to setbacks and noise limits that provides more-than-minimum protection to those who live or work near wind turbines. These will help minimize local impacts on quality of life and serve as a buffer against possible unrecognized health effects.

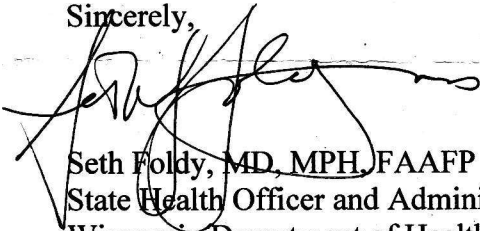
Current draft siting rules limit noise exposures from wind turbines to very low levels, and we anticipate that the final siting rules will be at least equally protective. For this reason, we do not believe there is a compelling reason to perform an epidemiologic investigation in Wisconsin. To the extent that gaps remain in current science, DPH favors continued investigations to help advance knowledge and guide future policy development. The most valuable studies would assess subjective complaints and objective clinical measurements in the setting of controlled or known environmental exposures. Such clinical studies fall outside the scope of standard public health investigations.

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As additional scientific evidence becomes available, DPH will continue to appraise its relative strength, credibility, and applicability to the issue of wind turbine development in Wisconsin.

As is the case with any major development undertaking in the State of Wisconsin, it is important that we continue to look for ways to maximize positive impacts and minimize negative impacts to residents. To the extent that these impacts fall into the public health realm, DPH will continue to seek data and information to guide public policy on this matter.

Sincerely,

A handwritten signature in black ink, appearing to read 'Seth Foldy', is written over a horizontal line. The signature is stylized and cursive.

Seth Foldy, MD, MPH, FAAFP
State Health Officer and Administrator
Wisconsin Department of Health Services
Division of Public Health